IN THE CLAIMS:

The following listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended) A ~~carrier~~ computer-accessible memory medium comprising program instructions for creating a scene graph, wherein the program instructions are executable to implement:

creating a data flow diagram in response to input, wherein said creating comprises:

displaying a first plurality of nodes on a display, wherein each of the plurality of nodes is executable to create at least a portion of the scene graph;

connecting the first plurality of nodes to create the data flow diagram, wherein the first plurality of nodes are connected to specify data flow among the plurality of nodes; and

executing the data flow diagram, wherein said executing creates the scene graph;

wherein the scene graph specifies a plurality of objects and relationships between the objects, and wherein the scene graph is usable in rendering a graphical image of the plurality of objects.

2. (Currently Amended) The ~~carrier~~ memory medium of claim 1, wherein the program instructions are further executable to implement:

storing the scene graph in a memory medium after said executing.

3. (Currently Amended) The ~~carrier~~ memory medium of claim 1, wherein the scene graph specifies a three dimensional (3D) scene.

4. (Currently Amended) The ~~carrier~~ memory medium of claim 3, wherein the three dimensional (3D) scene comprises a plurality of 3D objects in a specified spatial arrangement.

5. (Currently Amended) The ~~carrier~~ memory medium of claim 4, wherein the scene graph comprises an object hierarchy that specifies relationships among the plurality of 3D objects in the scene.

6. (Currently Amended) The ~~carrier~~ memory medium of claim 5,

wherein the object hierarchy comprises a plurality of nodes corresponding respectively to the objects in the scene;

wherein each node in the object hierarchy contains information related to the corresponding object, indicating one or more of:

a name;

a parent object or node;

one or more children objects or nodes; and

a transformation.

7. (Currently Amended) The ~~carrier~~ memory medium of claim 5, wherein the scene graph further comprises a plurality of models, wherein each model comprises geometric information necessary to draw a respective 3D object.

8. (Currently Amended) The ~~carrier~~ memory medium of claim 7, wherein the scene graph further comprises a plurality of skins, wherein each skin comprises a surface description for a model, including one or more of:

color;

shininess; and

a texture map.

9. (Currently Amended) The ~~carrier~~ memory medium of claim 8, wherein each node in the object hierarchy comprises a model and a skin for the corresponding object.

10. (Currently Amended) The ~~carrier~~ memory medium of claim 1, wherein said creating the data flow diagram further comprises:

displaying a second plurality of nodes on a display, wherein each of the second plurality of nodes is selectable for inclusion in a data flow diagram; and

receiving user input selecting the first plurality of nodes from the second plurality of nodes.

11. (Currently Amended) The ~~carrier~~ memory medium of claim 10, wherein said displaying the second plurality of nodes on a display comprises:

displaying the second plurality of nodes in one or more palettes on the display.

12. (Currently Amended) The ~~carrier~~ memory medium of claim 10, wherein the second plurality of nodes comprises one or more of:

an add model node, executable to add a model to the scene graph;

a delete model node, executable to remove a model from the scene graph; and

an empty models node, executable to remove all models from the scene graph.

13. (Currently Amended) The ~~carrier~~ memory medium of claim 10, wherein the second plurality of nodes comprises one or more of:

an add color node, executable to create a skin with a simple color;

an add color array node, executable to create an array of colors for a model;

an add material node, executable to create a skin that contains diffuse, specular, ambient, and/or emissive color components;

an add texture node, executable to create a skin with a specified texture map;

a delete skin node, executable to remove a skin from the scene graph; and

an empty skin node, executable to remove all skins from the scene graph.

14. (Currently Amended) The ~~carrier~~ memory carrier medium of claim 10, wherein the second plurality of nodes comprises a plurality of primitive model building nodes, each executable to generate model data for a respective model.

15. (Currently Amended) The ~~carrier~~ memory carrier medium of claim 14, wherein the plurality of primitive model building nodes comprises one or more of:

a build box node, executable to generate geometric data for a box;

a build cone node, executable to generate geometric data for a cone;

a build cylinder node, executable to generate geometric data for a cylinder;

a build sphere node, executable to generate geometric data for a sphere;

a build toroid node, executable to generate geometric data for a toroid;

and

a build height map node, executable to interpret a two dimensional array of numbers as a distributed field of heights.

16. (Currently Amended) The ~~carrier~~ memory medium of claim 14, wherein the plurality of primitive model building nodes are operable to be used conjunctively to generate complex models.

17. (Currently Amended) The ~~carrier~~ memory medium of claim 10, wherein the second plurality of nodes comprises one or more of:

an add object node, executable to add an object to the scene graph;

a delete object node, executable to remove an object from the scene graph; and

an empty objects node, executable to remove all objects from the scene graph.

18. (Currently Amended) The ~~carrier~~ memory medium of claim 10, wherein the second plurality of nodes further comprises one or more render nodes, wherein said displaying the plurality of nodes further comprises displaying at least one render node of the one or more render nodes which is operable to receive the scene graph as an input and render an image based on the scene graph.

19. (Currently Amended) The ~~carrier~~ memory medium of claim 18, wherein said executing the data flow diagram comprises:

executing the at least one render node to render the image based on the scene graph.

20. (Currently Amended) The ~~carrier~~ memory medium of claim 18, wherein the one or more render nodes comprise one or more of:

a render objects node, for rendering an object hierarchy in the scene;

a render scene node, executable to render the image based on the scene graph;

a create camera node, executable to create a camera for a scene; and

a create control node, executable to create a camera controller for a picture control.

21. (Currently Amended) The ~~carrier~~ memory medium of claim 1, wherein the data flow diagram comprises a graphical program.

22. (Currently Amended) The ~~carrier~~ memory medium of claim 21, wherein the graphical program comprises a LabVIEW graphical program.

23. (Currently Amended) The ~~carrier~~ memory medium of claim 21, wherein the graphical program comprises a block diagram portion and a graphical user interface portion.

24. (Currently Amended) The ~~carrier~~ memory medium of claim 23,

wherein, during execution of the data flow diagram, the graphical user interface is displayed on a display of a first computer system and the block diagram executes on a second computer system.

25. (Original) A computer-implemented method for creating a data flow diagram which is executable to create a scene graph, the method comprising:

displaying a plurality of nodes on a display, wherein each of the plurality of nodes is selectable for inclusion in a data flow diagram;

receiving first input selecting at least a subset of the plurality of nodes for inclusion in the data flow diagram; and receiving second input connecting the plurality of nodes to create the data flow diagram, wherein the data flow diagram comprises the at least a subset of the plurality of nodes, and wherein the at least a subset of the plurality of nodes are executable to create at least a portion of a scene graph;

wherein the scene graph specifies a plurality of objects and relationships between the objects, and wherein the scene graph is usable in rendering a graphical image of the plurality of objects.

26. (Original) The computer-implemented method of claim 25, further comprising:

executing the data flow diagram to create the scene graph.

27. (Original) The computer-implemented method of claim 26, further comprising:

storing the scene graph after said executing.

28. (Original) A system for creating a scene graph, comprising:

a processor; and

a memory medium coupled to the processor, wherein the memory medium stores program instructions which are executable to:

create a data flow diagram in response to input, wherein in creating the data flow diagram, the program instructions are executable to:

display a plurality of nodes on a display in response to first input, wherein each of the plurality of nodes is executable to create at least a portion of the scene graph; and

connect the plurality of nodes to create the data flow diagram in response to second input, wherein the plurality of nodes are connected to specify data flow among the plurality of nodes; and

execute the data flow diagram to create the scene graph.

29. (Original) A system for creating a scene graph, comprising:

means for creating a data flow diagram in response to input, comprising:

means for displaying a first plurality of nodes on a display in response to first input, wherein each of the plurality of nodes is executable to create at least a portion of the scene graph; and

means for connecting the first plurality of nodes to create the data flow diagram in response to second input, wherein the first plurality of nodes are connected to specify data flow among the plurality of nodes; and

means for executing the data flow diagram, wherein said executing creates the scene graph;

wherein the scene graph specifies a plurality of objects and relationships between the objects, and wherein the scene graph is usable in rendering a graphical image of the plurality of objects.